NCCS – Getting Started

NCCS User's Meeting February 14, 2006

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User Assistance Group

National Center for Computational Sciences

Oak Ridge National Laboratory

Outline

- **Introduce the stars**
- **Support options**
- **Common features**
- **Managing your allocations**
- **Future directions**
- **X1E overview (Richard Mills)**
- **XT3 overview (Bronson Messer)**

Jaguar - Cray XT3

- **5294 Nodes**
- **2.4Ghz AMD opteron**
- **25TF**
- **Lustre filesystem**
- **Unicos/lc**
  - **Linux/Catamount**
- **10th fastest computer**
  - **www.top500.org**

Phoenix - Cray X1E

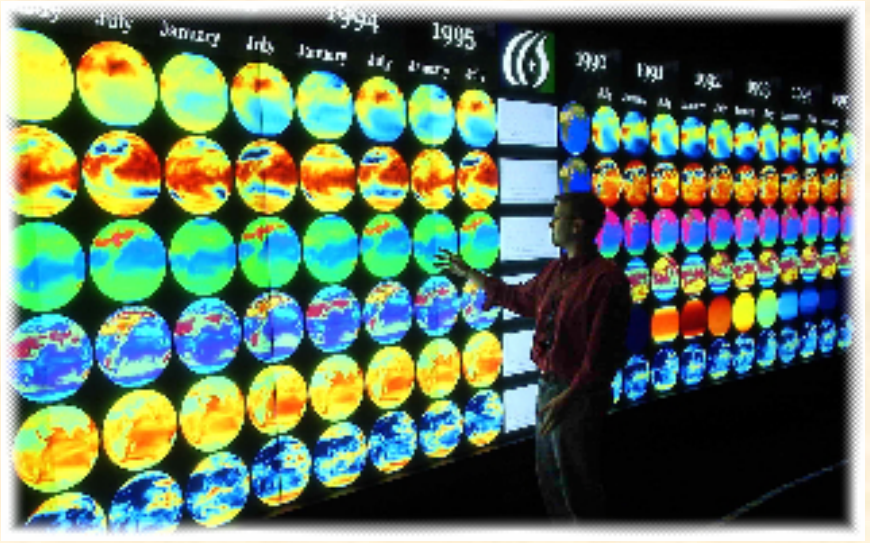
- **1024 MSPs**
- **Custom vector processors**
- **18TF**
- **Largest X1E**
- **Linux cross compiler**
  - **robin.ccs.ornl.gov**

Ram - SGI Altix

- **256 Intel Itanium2 processors**
- **2TB shared memory**
- **LCF pre/post processing**

Hawk - visualization cluster

- **64 node Linux cluster**
  - **Everest – 14 nodes**
  - **Render – 50 nodes**
- **Quadrics Elan3 interconnect**
- **27 panel powerwall**
- **35 million pixel resolution**



HPSS – Mass Storage

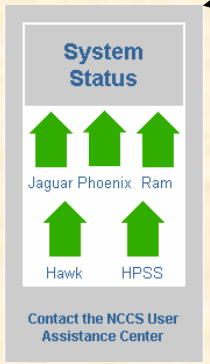
- **Tape and disk storage**
- **Suitable for backup and long term storage**
- **900TB capacity today**
- **Expandable to 1.7PB**
- **hsi to access**
  - **FTP-like**

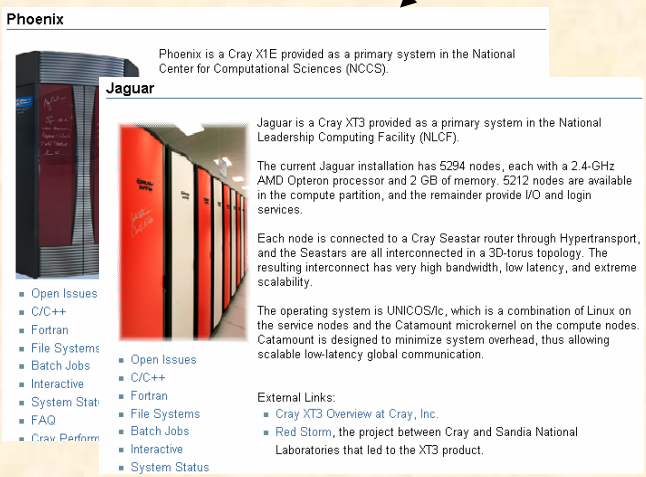
How to get help:

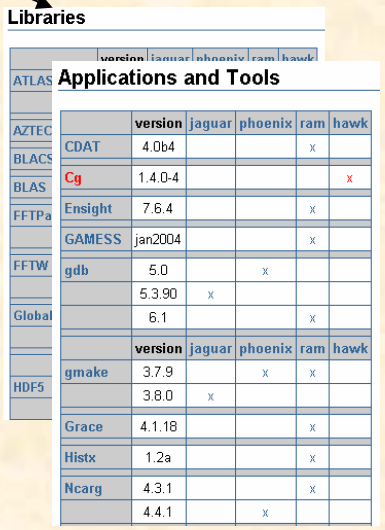
- **Web (www.nccs.gov)**
  - **System status**
  - **FAQs**
  - **Available software**
- **Email (help@nccs.gov)**
  - **User Assistance Center**
  - **M-F 9am-5pm ET**
- **Phone (865-241-6536)**
  - **24/7**

Web support

- **System Status**
- **Resource Info**
- **Available software**

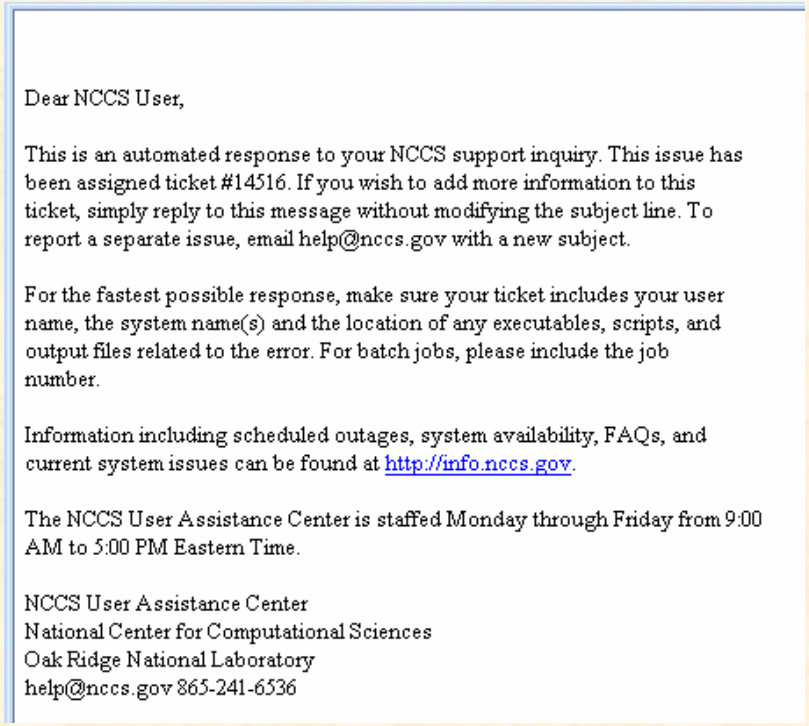






Email support

- **help@nccs.gov**
- **RT system**
  - **Automated response**
- **Help us help you**
  - **Username**
  - **Description**
  - **Machine**
  - **Error messages**
- **More is better**



Dear NCCS User,

This is an automated response to your NCCS support inquiry. This issue has been assigned ticket #14516. If you wish to add more information to this ticket, simply reply to this message without modifying the subject line. To report a separate issue, email help@nccs.gov with a new subject.

For the fastest possible response, make sure your ticket includes your user name, the system name(s) and the location of any executables, scripts, and output files related to the error. For batch jobs, please include the job number.

Information including scheduled outages, system availability, FAQs, and current system issues can be found at http://info.nccs.gov.

The NCCS User Assistance Center is staffed Monday through Friday from 9:00 AM to 5:00 PM Eastern Time.

NCCS User Assistance Center
National Center for Computational Sciences
Oak Ridge National Laboratory
help@nccs.gov 865-241-6536

Phone support

- **24/7 support**
- **Staffed by UAG & CompSci**
  - **M-F 9am-5pm ET**
- **865-241-6536**

Common features

- **NFS mounted home directory**
  - **500MB quota**
- **Scratch space**
  - **Temporary**
  - **/tmp/work/<username>**
- **Access to HPSS**
- **One time password access**
- **Totalview**

Connecting

- **Use Secure Shell**
  - **ssh userid@<machine>.ccs.ornl.gov**
  - **ssh user@phoenix.ccs.ornl.gov**
- **One time password**
  - **RSA SecurID**
  - **PASSCODE = PIN + Token Code**
  - **SSH client need keyboard-interactive**
- **Jaguar is different**
  - **ssh user@home.ccs.ornl.gov then –**
  - **ssh user@jaguar.ccs.ornl.gov**

Modules

- **Quick and easy environment setup**
- **Commands**
  - **module list**
  - **module avail**
  - **module load <module>**
  - **module unload <module>**
  - **module swap <old> <new>**
  - **module help**
- **Example**
  - **module load craytools**

Tips

- **Home directory quota 500MB**
  - **Use scratch space - /tmp/work/<user>**
- **Use *lsquota* to determine disk quota**
- **HPSS works best with >1GB files**
  - **tar cvf - . | hsi put - : data.tar**
- **Need software installed?**
  - **help@nccs.gov**

Accounting

- **Every project has an identifier**
  - **FUSXXX, CHMYYYzzz, etc**
- **Include in PBS scripts**
  - **#PBS –A FUS123**
- **No identifier = no submission**
- **Aids in proper accounting of allocations**

Managing Allocations

- **Adding access or users**
  - **https://secure.ccs.ornl.gov/request.new.html**
  - **Has everyone turned in Appendix B???**
- **Subprojects**
- **Allocation reports**
  - **Weekly for primary investigators**
- **Project wiki space available**
  - **By request**
  - **users.nccs.gov/<projectID>**

The Horizon

- **Web access to accounting information**
- **User satisfaction surveys**
- **Periodic reports**
- **Highlights**

How can we help you?

- **Suggestions encouraged**
  - **help@nccs.gov**